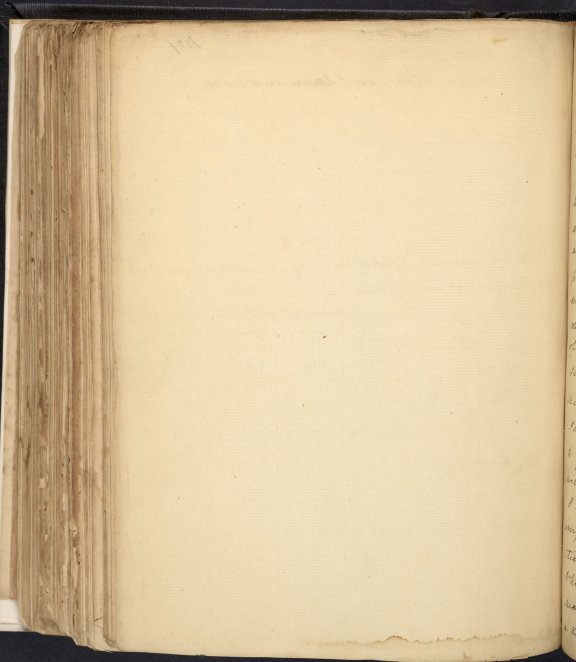


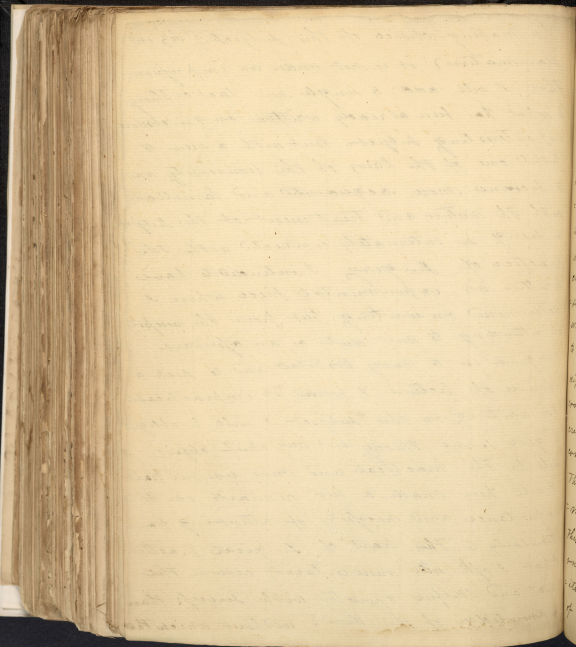
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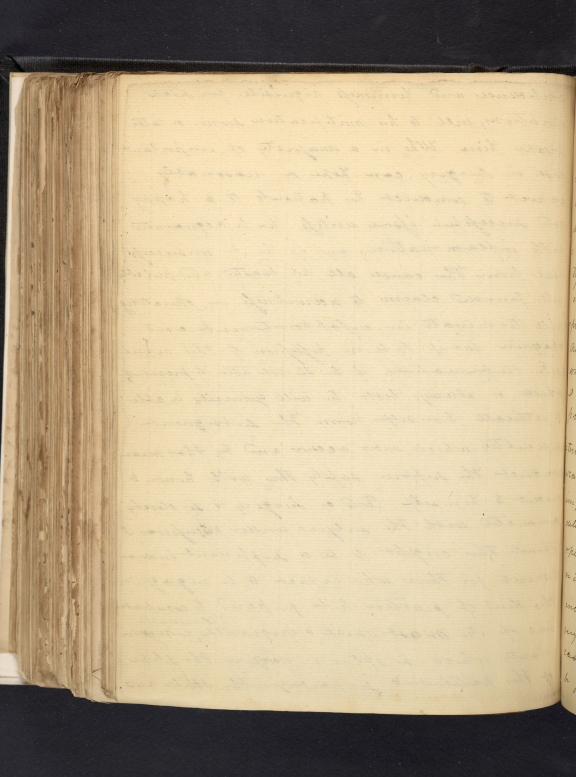
On inflammation —



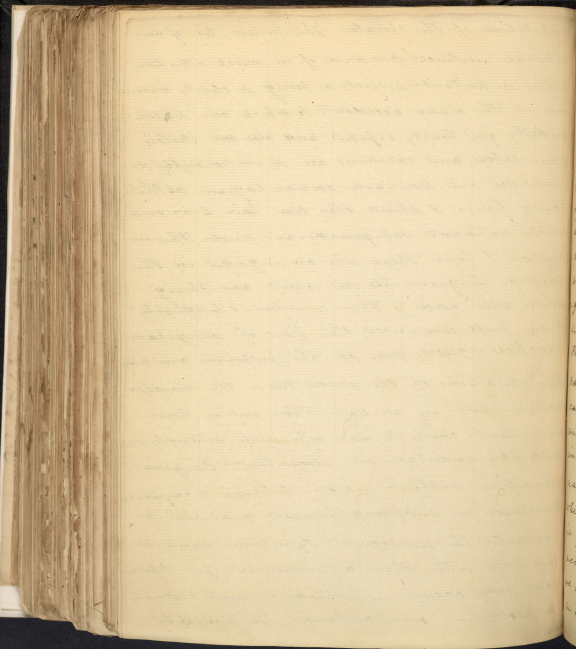
In making choice of this subject. (viz in-
flammation) it is not under an impression
that I will add a single new fact or theory
to what has been already written on this obscure
but interesting subject. But with a view to
fulfil one of the laws of this University and
to become more acquainted and familiar
with the nature and treatment of this subject
as being so intimately connected with the
practice of Surgery I intended to have
written an experimental piece where I
determined on writing, but from the necessity
of attending to my duty as an assistant
Surgeon in a Navy Hospital and to such a
number of lectures I found it impracticable
In writing on this subject I will be obliged
to give some theory but my chief object
will be the practical and more useful parts
I will here make a few remarks on the
importance and necessity of attending par-
ticularly to this part of Surgical practice
that I oft will more certainly crown the
merit and skilful operator with success than
a knowledge of this kind? without which that



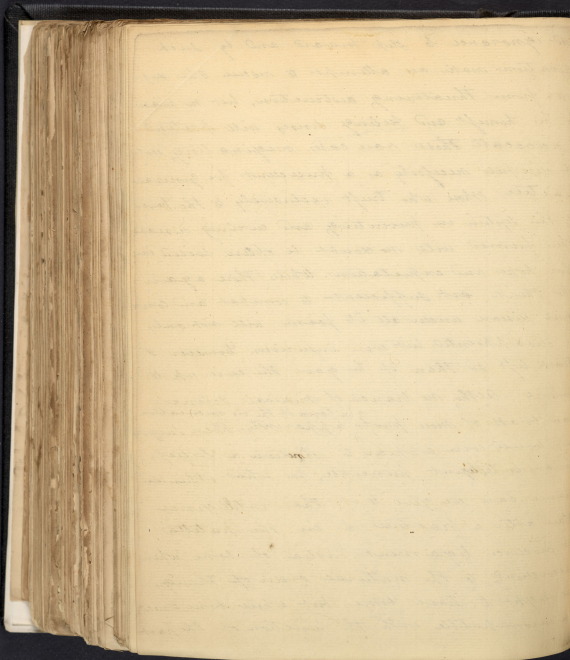
confidence and firmness requisite for such
operations, will to his mortification sooner or later
forsake him. Who in a majority of important
cases in Surgery can hope or reasonably
expect to conduct his patients to a happy
and successful issue unless he be acquainted
with inflammation, and if he be unsucces-
-ful from this cause all his boasted and probably
will founded claim to adroitness in operating
will terminate in disappointment and
-chagrin. but if he be in possession of this requi-
-site information, if he be not able to prevent,
which is always best, he will generally be able
to extricate himself from the subsequent
difficulties which may occur and by that means
conduct the sufferer safely thro' with honor &
credit to himself. And as Surgery is so closely
connected with the subject under discussion I
think this ought to be a sufficient induc-
-ement for those who expect to be engaged in
this kind of practice to be prepared to combat
one of its most usual & frequently ^{formidable} congn-
-itants, which so often enlarges the life
of the patient & jeopardizes the skill and

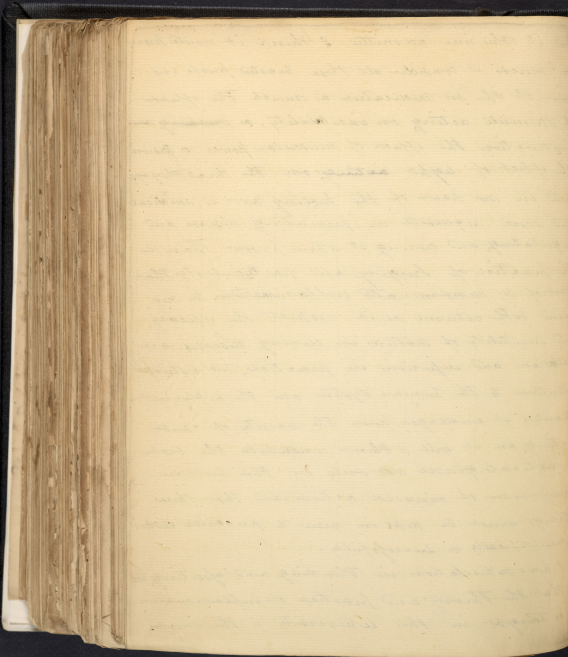


reputation of the operator. This period too of our
national existence demands of us much attention
to this important subject, as being so closely concern-
ed in the many accidents to which our soldiers
are daily and hourly exposed and also our sailors
whose labors and exertions are so imperiously de-
manded and peculiarly advantageous at this
trying time. I think they bid fair to be our
chief national safeguards and under this im-
pression I hope those who are engaged in the
navy as Surgeons will not omit any thing
which will add to their comfort & longevity
I am well convinced this part of surgical
practice requires more of the profound and mas-
terly operations of the mind than the mere op-
eration itself in at least three out of four
important cases. A man who would willingly and
deliberately undertake an important surgical
operation without reasons superior to prejudice
or interest for supposing himself qualified to
encounter the subsequent symptoms, would be
very little better than a murderer. Yet I believe
cases may occur in which it would not only
be just but even a favor for temerity



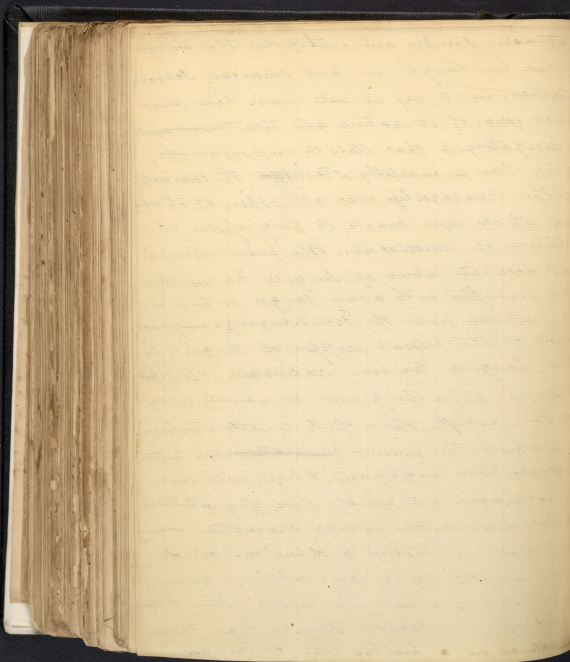
and ignorance to step forward and by such
operations make an attempt to rescue the suf-
ferer from threatening destruction, but no man
in his honest and feeling senses will pretend
to advocate these rare cases originating out-
of direful necessity as a precedent for general
practice. Those who trust exclusively to the power
of the system in preventing and curing disease
when formed, will no doubt be often foiled in
their hopes and expectations. While those again
who think art sufficient to combat and con-
quer disease under all its forms, will not only
be disappointed, but even injurious. However I
think less so than if he gave the cure up to
nature. Altho, no branch of medical science
can boast of more proofs ^{in favor of the vis medicatrix} apparently than surgery
and would even appear to sanction a belief
in an intelligent principle, for what other
name can we give to it. Than intelligence
when after a fracture as in the patella
it produces ligament instead of bone when
according to the natural order of things
we ought to have bone. but where bone would
be incompatible with the function of the part





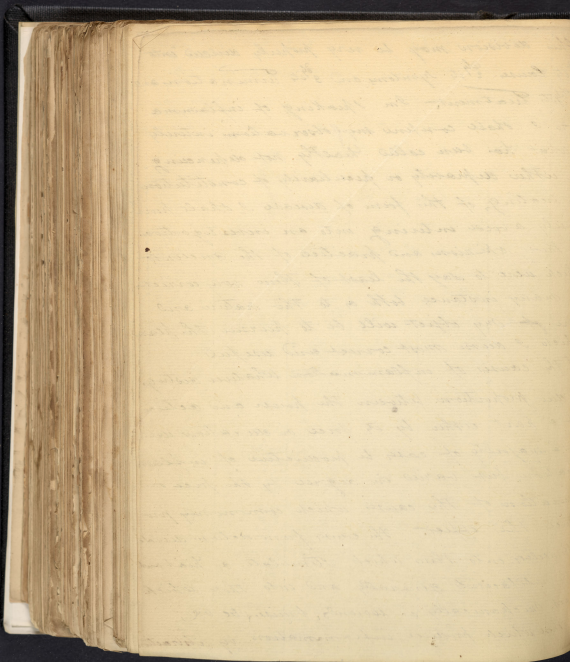
rational simple and intelligible. That any now
or have been taught in any Medical School
whatever, but to say we will never have more
correct ideas of its nature and treatment would
be derogatory to that state of improvement
which has so indubitably stamped the character
of this University over all others of its day
and which now marks its progress in the
science of medicine. The present simple
and accurate fabric of Surgery has doubtless
been furnished with a very large portion of
its materials, from the scrutinizing & original
mind of the present professor of Surgery, by
him Surgery has been rationally stripped
of much superfluity and humanely robbed
of the largest share of its cruelty & torture
for which the present ~~generation~~ and future
generations ought and I hope will feel
that warm and liberal share of gratitude
which becomes the human character —

I shall now proceed to define and divide
my subject. By inflammation I mean
that state of a part. in which there is more
redness, tumefaction, pain & heat than
natural in a healthy state of things.

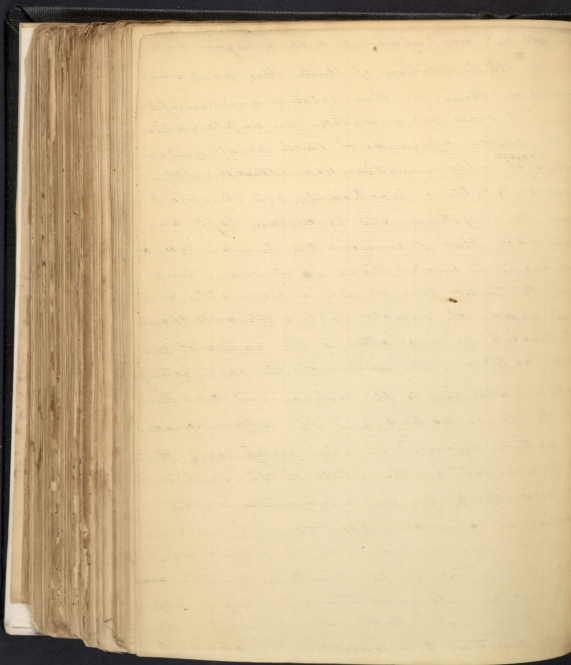


This division may be very properly divided into
1st its Cause. 2^d its Symptoms and 3^d its Termination and
4th its Treatment. In speaking of inflammation I shall confine my observations entirely
to what has been called healthy, not depending
on either depravity or peculiarity of constitution
In treating of this form of disease I shall pur-
-pose a voice entering into an investigation
of the opinions and practices of the ancients
which were to say the least of them very correct
in many instances both as to the nature and
cure of my object will be to pursue the plan
which I deem most correct and useful

Of the causes of inflammation. Whatever destroys
a due proportion between the power and action
of a part either by its force or evacuation will
in a majority of cases be productive of inflam-
-mation, but varied in degree by the force or
evacuation of the cause, which commonly pro-
-duce this effect. The causes from action divide
themselves into those which stimulate as heat and
the rubefacients generally and into those which
act mechanically as wounds, bruises, &c &c
Those which produce inflammation by abstraction

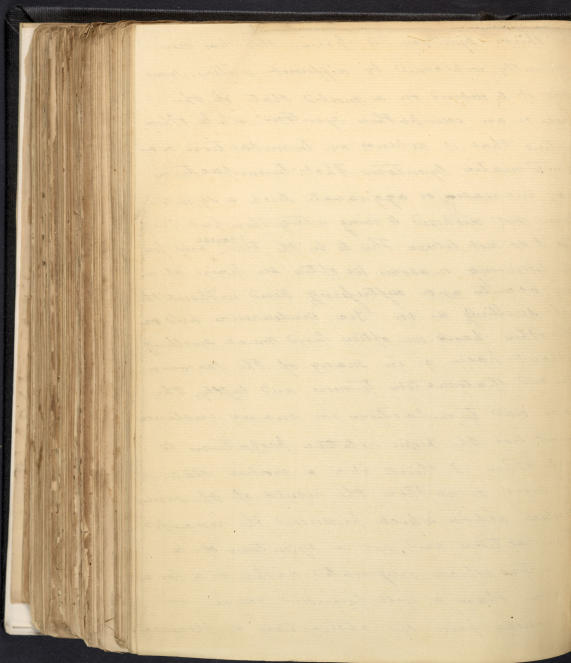


are cold and compressions, to such a degree as to
prevent the circulation of fluids thro' parts, which
depend on them for their vitality and nourish-
ment I shall not undertake an explanation
of the modes, operands of each remote and ex-
citing ^{cause} of inflammations, because I think this neither
very profitable or practicable, and therefore I
wave this mysterious and herculean task and
only add that I consider the human body as
one chain or circle made up of many links,
and to treat this as well as every other form
and grade of disease, with a tolerable chance
of success, we must attend to the nature of the
body acted on, the nature of the cause acting
with an attention to the violence and duration
of the power acting, and the different grade,
of actions produced in this process, and then
to be regulated by the state of the system
in prescribing for inflammations, whether
partial or general. After these few short and
I think correct remarks on this subject I will
next take notice of the symptoms usually ~~attendant~~
attendant on inflammation and what I suppose
to be their most probable causes. Redness is the
first symptom to be considered. This appears to



to depend on two causes 1st on an increased action
in the vessels of the part which circulate red
blood. and 2^d on an increased size in those vessels
which in a natural state transmit lymph
but in this excited state permit red blood
to pass thro' them, constituting what is called
an error loci of red blood. I infer that an
increase and not a diminished action of
the part exists. from the nature and well
known effects of the remedies which are
used. with ~~such~~ such prompt and decided
advantage. in the first stages of inflam-
mation, such as bleeding locally or generally,
purging, cold, rest, favored by posture, which
last mode I consider a species of direct depletion
and of great importance and efficacy in
facilitating the cure of inflammation when
located in the extremities and often times
the only kind of depletion ^{now} warranted
in ~~the~~ using. The second symptom is tumor
-faction This appears to be produced by a
deposition of coagulable lymph and some-
times serum together with an enlarge-
-ment of the vessels in the part diseased

The third symptom is pain. This has been differently explained by different writers. Some make it to depend on a morbid state of the nerves or an eczema-like symptom, while others contend that it depends on tumefaction or a symptomatic symptom. That tumefaction may increase or aggravate such a symptom I am not disposed to deny altogether, but that I do not believe this to be the ^{cause} true, and for the following reasons. We often see pain of a very acute and distressing kind without the least swelling as in *Gla Bouloureux* and on the other hand we often find much swelling without pain as in many of the sarcomatous and stromatous tumors and lastly, the pain and tumefaction in many instances do not bear the proper relative proportions to each other. I think it is a morbid state of the nerves or rather the result of the same morbid action which produced the redness & tumefaction and not a symptom of a symptom which originated rather as a fortuitous than a well founded cause — I consider pain the abstraction of pleasure



and Measure and Health depend on due
proportion of power and action and consequent-
ly whatever destroys this due proportion, will
I think produce in some degree pain, which
however, will depend on the violence and force
of the cause producing the diseased action
called inflammation, this morbid action is
what I suppose to be the true cause of pain
and what I believe is analogous to what
is denominated a morbid state of the ner-
vous system made mention of by some
writers. The fourth symptom generally ~~taken~~
notice of is heat and till ~~you~~
Hunter's time this was universally admitted
but from some experiments made by this
rare man, the fact so long taken for gran-
ted, is quite problematical with me, altho I
was accidentally with the multitude till I care-
fully, ^{perused} his experiments made to test the truth
or falsehood of this opinion. and on this point-
rest on very ⁺utenable grounds, I will not at-
tempt an explanation of its modus operandi
for the foundation ought always to be well
^{previous} settled, to the raising of the superstructure

I will now take into consideration the termination and treatment of inflammation under four different stages which are generally distinctly marked. Tho' it is not always the case that these four grades succeed each other in the order I shall speak of them.

I shall for convenience divide them into the following order. 1st Adhesion 2^d Resolution 3^d Suppuration and 4th Gangrene

Adhesion. This appears to be the most simple and useful form of disease and one of the principle and most powerful auxiliary furnished by nature to the art of Surgery. This process has for its object the reproduction of parts when destroyed as in contused wounds and large abscesses or the reunion of parts when ^{disseparated} separated as in lacerated wounds of the scalp and simple incised wounds of different parts and these two apparently different functions are effected by the same agent viz coagulable lymph, which after it is thrown out puts on the form of bone, tendon or muscle

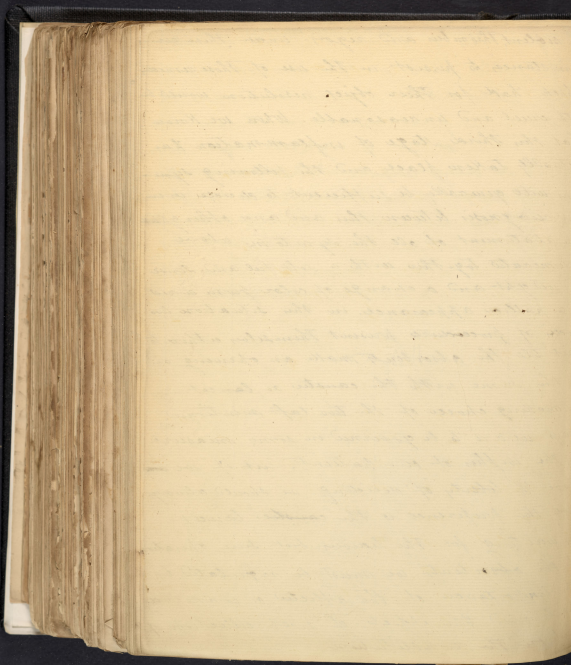
As the necessity of the case requires, nature
however frequently does too little or too much
and here the hand of art is requisite to
regulate her. It is very evident, that this
coagulable lymph must undergo some change
to fit it for this important purpose, but
what this is I believe none are able to tell
but this very obscure and intricate cause, has
been explained by supposing that it undergoes
a peculiar change. This I conceive to be no
explanation at all, but merely the assertion
of a fact, and fortunately for us the true
nature of this or will or many changes
which take place, is not essential to the
treatment of this and many other forms
of disease, with success, by attending to the
state of the system or part and learn if
practicable, whether there be too much or too
little action and to prescribe our remedies
accordingly, I believe we will generally practice
correctly. The remedies for too much action are
local and general as the necessity of the case
may demand. local remedies are however of
themselves sufficient for the management
of most cases of this grade, they should be cups

beds, rest and posture when practicable - combined with febrifuge mixture frequently applied to the part, if these will not answer a blister is next to be laid over the part and this will generally answer, but should this with the others prove ineffectual, we must then attempt to relieve the part at the expense of the whole system, by bleeding purging and low diet, using at the same time the local remedies particularly the blister which I consider an *ipso argum.* in local inflammation. I will just observe that purging ought not to be neglected while using the local means, should the symptoms be either mild or violent unless the motion given by such medicines in their operation would by irritating the part affected be more injurious than such medicines would be useful. On the other hand when the action is too weak for the reproduction ~~and~~ reunion of parts our plan of treatment must be vice versa, with the exception of the blister which appears to possess a two-fold virtue. Resolution I think will be very properly spoken of after coadhesion as being the principal

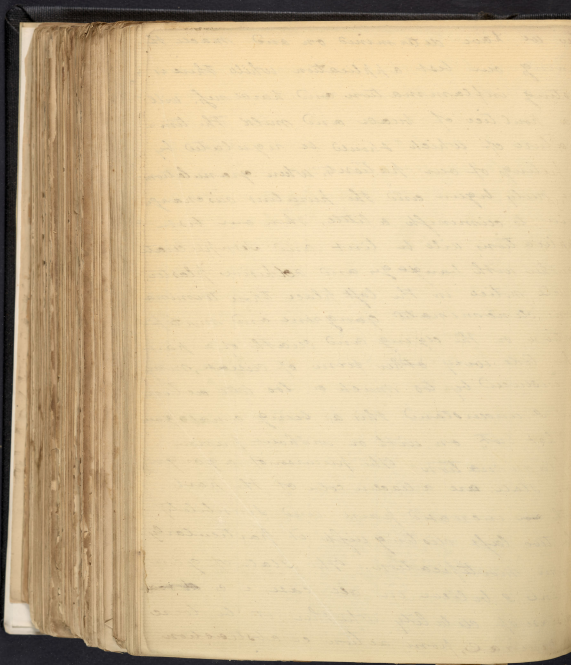
and necessary agent in removing the superfluous matter which is frequently left after the process of adhesion is over. The mere stimulus of this matter is often sufficient to excite the absorbents to this salutary office, without the interference of art, the process of resolution is performed for the most part by the power and agency of the absorbents. This like adhesion may suffer the same irregularities. Sometimes this stage transcends the bounds of resolution and threatens disorganization or suppuration. Here we must have recourse not only to the local but general remedies, a blistering, bleeding, purging, rest and posture just as in adhesion. When in a similar state and which has been already spoken of. When the absorbents are too feeble we must excite them to action by stimulating applications and here again the blister claims a two fold virtue — Resolution is sometimes produced by hemorrhage from the part. The modus operandi of this ~~is~~ evidently depends on a direct depletion or emptying the blood vessels of the part, a secretion of serum appears to answer the same

more and this I think is effected by ~~relieving~~
relieving the parts of that tension which is
always unfavorable to resolution, where the
action is too great. posture in the all stages
of high ^{action} must not be neglected. where there
is hope of its being useful, it appears to do good
in this stage of inflammation by open-
ing the ~~more~~ momentum and consequently
the quantity of blood which circulate thro,
the part in a given space of time and
by thus keeping under the circulation, we
will have the absorbents in a more active
state where we wish to effect our object
tho, this agency, but notwithstanding, all these
means will sometime prove unavailing, and the
symptoms of suppuration become more and more
obvious and inevitable, altho the assistance of the
neighboring ^{parts} is attempted by that important
and wonderful law of the animal Economy
denominated Sympathy yet they must suc-
cumb as victims to a raging tyrant —
we may generally be certain that suppuration
will take place from an aggravation of all
the symptoms of inflammation connected with

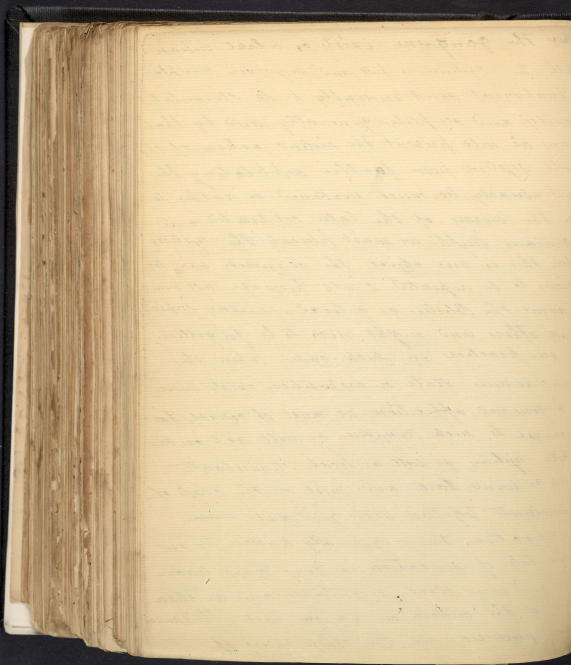
a violent thrombus and rigor: under these circumstances, to persist in the use of those remedies which had for their object resolution would be both cruel and unreasonable. When we know that this third stage of inflammation has actually taken place and the following symptoms will generally be sufficient to decide us in our diagnosis between this and any other grade an abatement of all the symptoms above enumerated together with a soft feel and sense of weight and a change of color from a red to a pallid appearance. in this situation two modes of procedure present themselves either to wait till the absorbents make an opening or do the same with the caustic or lancet in making choice of the two last mentioned ways. we are to be governed in some measure by the wishes of our patients, but if we have the liberty of deciding. we should always give the preference to the caustic lancet in waiting for the tedious but sure operation of the absorbents. we must be regulated by the importance of the affected or connected parts and the effects of such collection of pus on the constitution



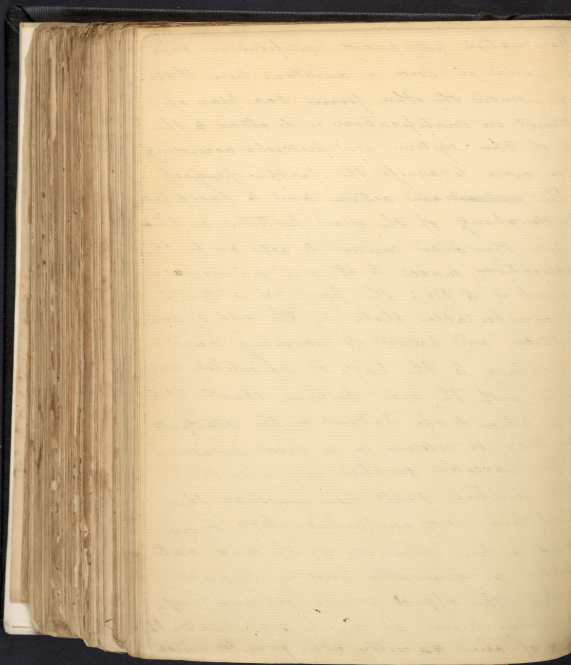
After we have determined on and made the opening, our best application while there is existing inflammation and hardness, will be a poultice of bread and milk. The temperature of which should be regulated by the feeling of our patients. When granulations have fully begun and the purulent discharge begins to diminish a little, then our best applications will be lint and simplicated together with bandages and adhesive plaster. I will notice in the last place those terminations denominated gangrene and mortification or the dying and death of a part. This like every other form of disease, may be induced by too much or too little action and I understand this as being analogous to that brot on with or without previous inflammation. The precursors of a gangrenous state, are a leaden color of the part with ~~an~~ increased pain and sensibility the two last distinguish it particularly from mortification. The state of gangrene I believe in all cases is a ~~strong~~ disease of debility whether it be local or general, from action or abstraction.



When the gangrene exists, as a local disease while the system is full and vigorous, our plan of treatment must evidently be to stimulate locally and sedate generally, and by that means we will prevent the violent action of the whole system from farther debilitating the part already too much weakened or rather to use the words of the late celebrated and ingenious Ruff we must plumb the system when this is our object the remedies are too obvious to be repeated. I will however not omit to name the Blister as a local remedy superior to all others and ought never to be forgotten in our practice in such cases. When this gangrenous state or disposition exists more or a general affection we must of course have recourse to such remedies as will act on the whole system as well as local Stimulants. Such as wine bark and most of the class of Stimulants together with good diet — Mortification, this is generally known by an entire loss of sensation a very dark leaden color and even black sometimes and an elevation of the cuticle in various parts. The causes which produce all the other forms of

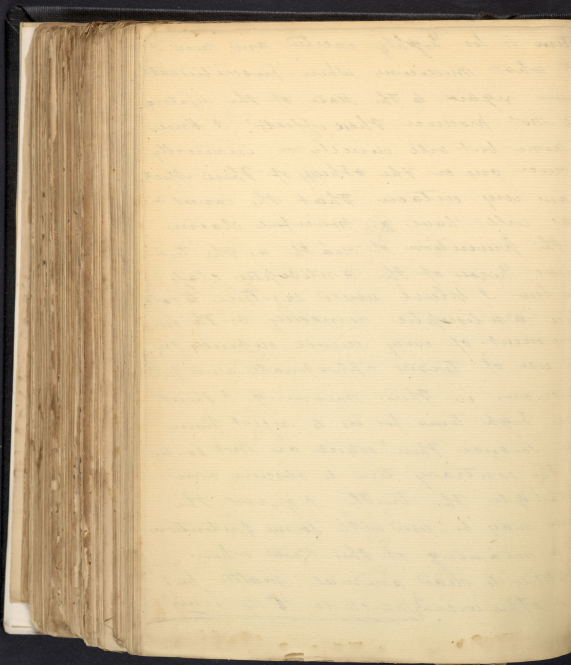


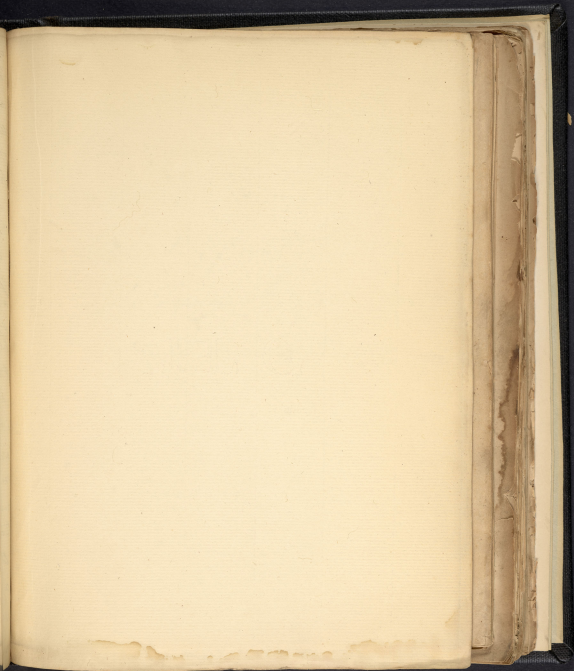
inflammation will produce mortification, only
to be varied in force or duration; from that
which induced the other forms. Our plan of
treatment in mortification is to attend to the
state of the system and prescribe accordingly
-ly in order to arrest the farther progress
of this ~~un~~increased action and to facilitate
the sloughing of the dead portions. as this
portion thus dead cannot be acted on by the
application made to it, our principal
business is to keep the part in a moist
and comfortable state by the use of mild
poultices and prevent it becoming hard &
irritating to the parts of sensibility con-
-nected with the dead portions, should it be
very fetid to the patient or the attendant.
This may be relieved in a great measure
by the charcoal poultice and also the
bark poultice. I will now conclude this
short and very imperfect essay by ma-
-king a few remarks on the word anti-
-septic as generally used by medical
writers. This affords a very striking proof
how very prone we are to perpetuate the
error of our ancestors, either from too much

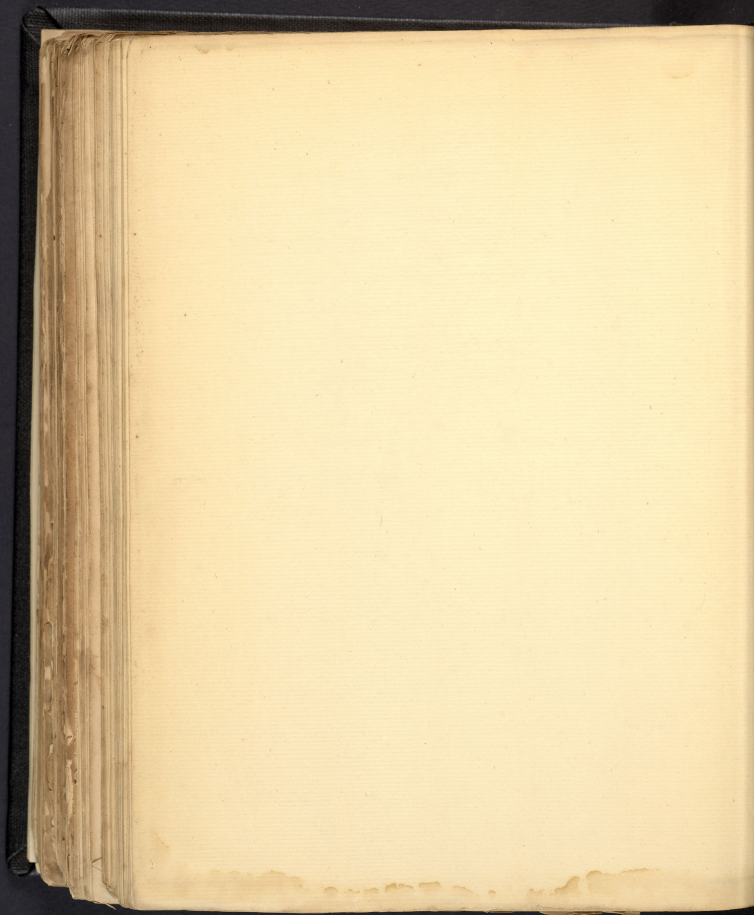


immuration or inattention and not from
ignorance. I am not willing to confess that
we now use the word antiseptic from ig-
norance because no one will now admit of
the putrid state of the living system
whence this term originated and as they
knew no better it was proper for them to
use it for the expression of such a belief
and if we will not now admit of such a
cause and from very good reasons I think
the term itself ought also to be improper
at least as far as it respects the living
human body. What is meant by Anti-
septic? Such medicines as prevent putre-
faction. As this cannot take place in the
living human body it then must be
such medicines as prevent death, for
this is absolutely necessary before such
specific medicines can be prescribed with
any degree of propriety for this particu-
lar state of the living body. This now
however no one will advocate. Well
how do those antiseptics prevent death?
by giving tone to the system when it
is too weak and abstracting when the

System is too highly excited and now I
ask what medicines when prescribed with
a due regard to the State of the System
will not produce these effects? I know
of none but will directly or indirectly
produce one or the other of these effects
I am very certain that the Cancer
Graft will have a powerful claim
to the prevention of death. as the two
great Heroes of the antiseptic class
and few I believe would venture to call
them antiseptic remedies. as the im-
provement of every science consists in
the use of terms appropriate and per-
spicuous in their meaning I think
it is high time for us to reject from
our science those which are not so. but
on the contrary tend to obscure and
entangle the truth. I grant the
term may be used with some pretensions
to a meaning of this kind when
applied to dead animal matter but
not otherwise. 3 March 1844 Finis







The General Assembly

of the State of New York

in Session at Albany

January 1st 1880

John Francis Barker, Esq.

admitted March 2nd 1880

